PEPER, MARTIN, JENSEN, MAICHEL AND HETLAGE
ATTORNEYS AT LAW

2000 MAIN STREET
FORT MYERS, FLORIDA 33901-3050
(813) 337-3850

720 WEST MAIN STREET
BELLEVILLE, ILLINOIS 62220-1515
(618) 234-9574

TWENTY-FOURTH FLOOR
720 OLIVE STREET
ST. LOUIS, MISSOURI 63101-2396

(314) 421-3850
TELEX: 434257
TELECOPY: (314) 621-4834

1625 WEST MARION AVENUE
PUNTA GORDA, FLORIDA 33950-5295
(813) 637-1955

4501 TAMIAMI TRAIL NORTH
NAPLES, FLORIDA 33940-3018
(813) 261-6525

WRITER'S DIRECT DIAL NUMBER

(314) 444-6445

October 14, 1992

Cynthia L. Hutchison
U.S.E.P.A., Region VII
726 Minnesota Avenue
Kansas City, KS 66101

RE: Steelcote Facility - St. Louis, Missouri
Docket No. VII-91-H-0025

Dear Ms. Hutchison:

Pursuant to paragraph 28 of the above-referenced Administrative Order on Consent, I am enclosing the status report for the month of September, 1992.

In addition, this will notify you that the third quarter groundwater sampling is currently scheduled to take place on Monday, November 9.

Please let me know if you have any questions.

Very truly yours,

Alphonse McMahon

Alphonse McMahon

AM/fmp
Encl.
cc: Douglas A. Niedt (w/encl.)
Donald McQueen (w/encl.)
Larry Rosen (w/o encl.)

STL-48423.1

STATUS REPORT

SEPTEMBER 1992
STEELCOTE FACILITY
ST. LOUIS, MISSOURI

PLANNED ACTIVITIES

Planned activities included the receipt of surface water runoff sampling test results and continued work to resolve the apparent anomalous groundwater condition.

ACTUAL ACTIVITIES

Work on resolving the groundwater situation and the current status was described in a letter from D. McQueen to C. Hutchison dated 22 September 1992 (a copy of which is attached). The letter recommends specific actions which involve testing of the wells. As a result, no further action is planned regarding the groundwater situation until EPA responds to the action proposed in the letter.

Next, 33 drums of soil cuttings from the well installation activity in May were disposed of in September. Attached is a copy of a manifest dated 8 September 1992 (which was within ninety (90) days of the receipt of the analytical results of the soil cuttings) showing the disposal of:

15 drums of soil cuttings deemed hazardous by virtue of the levels of xylene and toluene in them (from borings C, D, and E); and

18 drums of non-hazardous soil cuttings (from borings A, B, F, and G).

The manifest also shows the disposal of 13 drums of hazardous waste from unrelated activities -- still bottoms from the operation of the distillation unit. In addition, a copy of the land ban documentation is attached.

Next, the development water generated during the second quarter groundwater sampling that took place in August, 1992 was discharged to the St. Louis Metropolitan Sewer District ("MSD") for treatment during September. A copy of MSD's approval, dated 21 September 1992, is attached. As indicated in a margin note on the letter, the water was discharged on 29 September 1992.

Last, surface water runoff sampling test results were received, and are attached.

September 22, 1992 Z-301L3

Cynthia Hutchison
U.S.E.P.A.Region VII
726 Minnesota Avenue
Kansas City, KS 66101

Re: Steelcote Facility, St. Louis, MO

Dear Ms. Hutchison,

The purpose of this letter is to make the USEPA aware of an apparent ground water anomaly at the Steelcote Facility to which reference has been made in the previous monthly status reports. The following paragraphs provide a description of the situation, the activities that we have taken to date to resolve the situation, and our recommendations for additional activities to resolve the situation.

The anomaly consists of a steep ground water depression that extends between wells B and C (see attached figure). Both the gradient and the flow direction is not what was anticipated for the site and the steepness of the gradient is not typical for the area nor does it appear to be consistent with the type of material encountered during the borings (boring logs are attached). Numerous groundwater elevations were recorded during and between the first and second quarter sampling and relative levels have remained consistent. Sampling logs which present the ground water level measurements from the top of the casings are attached.

Work performed to date (in addition to frequent monitoring of groundwater levels) has included searching the archives of the Metropolitan Sewer District and the City of St. Louis engineers office, and meeting with appropriate personnel from the U.S. Army Engineers, St. Louis District, Missouri Dept. of Natural Resources, Division of Geology and Land Surveying and excavation contractors and drillers who frequently provide services in the Mill Creek area.

There are a number of possible causes which, acting singularly or in combination, could conceivably cause this situation. These are as follows:

1. Large volume water extraction. The ground water surface depression could be

caused by pumping large volumes of ground water from adjacent properties. However, a visual search of the area and inquiries the city engineering department and drillers and excavators which work in the area along with a visual inspection resulted in no evidence of such activity.

2. Bedrock/alluvium related conditions. On occasion in an alluvial valley that abuts sedimentary rock, especially in situations where solutioning and mining of the rock or fire clay within the rock has occurred, anomalous ground water conditions can occur. This is a situation in which ground water passing through the bedrock, or solution features within the bedrock, comes into contact with alluvial materials. The ground water gradient in the alluvium between that portion of the alluvium which is adjacent to the bedrock and that portion of the alluvium further away can be relatively steep. This could possibly explain the situation at ground water monitoring well A, however it does not explain the situation at the northernmost well which is ground water monitoring well D.

3. Karst Topography. Sinkholes do occur throughout the area. It is conceivable that such a solution feature could be providing a drain. However, it seems likely that such a feature, if below the groundwater table, would be fully saturated and with no other factors acting, result in a shallow ground water gradient in such an environment.

4. Manmade Features. Buried structures, both draining and contributing, could also result in the anomalous conditions. Draining structures which may be present at the site, include underground storage tanks, old sewer systems and other abandoned structures such as steamlines.

It is known that an abandoned buried tank is present between wells B and C, where the depressed water levels occur. Personnel at the Steelcote Facility believe the tank is approximately 15,000 gallons in capacity and that the base of the tank is at or below the lowest detected level of groundwater. If such a tank were empty and were to have recently developed a leak it could be acting as a drain on the system. Note that the apparent configuration of the tank is consistent with the apparent shape of the depression.

A similar type of situation could occur with the existence of abandoned sewers below the depressed groundwater table. It is known that during the middle and late 1800's deep sewers were constructed in the Mill Creek area in a manner that if present would parallel the shape of the depression. Unfortunately, few records are available of these sewer systems and the search of the City Engineers and Metropolitan Sewer District archives failed to uncover any records of abandoned sewer systems in the area.

Other structures which are known to be present in the area but for which records are non-existent include abandoned steamlines.

Man made structures could also conceivably contribute to the high levels detected in wells A and D. The water lines that are present in the area are often unmapped and have a recent history of rupture. Nevertheless, the likelihood of two leaking water lines near both wells is small.

Below ground structures such as basements in the area are also known to flood during times of significant precipitation could conceivably be creating a mounding phenomenon. However, the only basement structure known in the area is the one that exists in a building immediately upgradient of well A. This could account for the high levels in well A, it would not account for the high levels detected in groundwater monitoring well D.

5. Non performing wells. Another potential cause is non-performing wells and in this case, specifically wells B and C. This situation sometimes occurs when auger wells are not sufficiently developed. When augering wells in areas such as Mill Creek where silts and clays are present, the walls of the well may become polished (smeared) and the smearing will act as a barrier to water passing into the annulus of the well. Generally, this "seal" is broken over time and/or during development activities when water is pumped from the well by forcing water from the surrounding strata into the annular space of the wells. The wells at the site are two inch inside diameter wells which were placed through 6 1/4 inch inside diameter hollow stem augers. As a result, between the outside wall and the casing in the wall of the boring there exists a thickness of nearly three inches of sand through which water has to be pulled during the pumping. This may not provide sufficient force to break the seal.

Given that the wells are approximately 60 feet deep, including 45 feet of screen through the saturated portion of the soil, it is unlikely that the wells are not performing. On the other hand, the soil logs indicate that moisture in the soil was encountered at approximately the same levels at all of the wells, that is, about 15 feet below the surface. This contrary evidence indicates that the wells are not performing and for that reason needs to be checked.

6. Variability of Strata Permeability. Visual observation of the soil borings did not indicate that significant strata changes relative to permeability were present. However, laboratory analysis indicates that some of the strata is relatively tight and it is conceivable that wells A and D are tapping upper level perched water, which is continually feeding the wells and maintaining an artificial high.

Prior to proceeding with any additional work, we suggest that performance of wells B and C be checked by a reverse slug procedure, that is, well casings be loaded with non-chlorinated water and that the drop in water level be monitored in order to determine whether or not water is passing beyond the annular space of the wells. This procedure would likely result in one of several scenarios, including:

1. The wells are performing properly and the anomalous conditions observed still

exist. This will most likely require additional subsurface investigation.

2. The wells are not performing properly and can be rehabilitated via use of other development techniques than originally used. Note that rehabilitation which will involve attempts to develop the wells via more radical techniques such as use of a surge block will require the development of a protocol. If rehabilitation works and anomalous conditions are still present, then most likely additional subsurface investigation will be required.

3. The wells are not performing properly and can be rehabilitated via use of other development techniques than originally used. Assume rehabilitation works and ground water conditions are as originally anticipated; that is, with a gentle gradient to the NNE. If this is the case, the existing wells are probably adequate.

4. The wells are not performing properly and cannot be rehabilitated. In this case, it will be necessary to reconstruct wells using other drilling techniques that those used to install the existing wells. Protocols will have to be developed for this action also.

Attached to this letter is a protocol for conducting the reverse slug test. Please review this material and provide comments. We will not proceed with this proposal until we have received USEPA's approval to do so.

If you have any questions, please call.

Sincerely,

Donald J. McQueen
Vice President

Enclosures: Technical Procedure 9, Well Performance Testing

cc: Mr. Doug Niedt
Mr. Alphonse McMahon

TRUCTIONS FOR THE COM-
TION OF THIS FORM ARE ON A
ARATE SHEET.

S DOCUMENT MUST BE USED
ALL MISSOURI-DESTINED
PMENTS.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
Division of Environmental Quality
Hazardous Waste Program
P.O. Box 176 Jefferson City, Missouri 65102
314-751-3176

HAZARDOUS WASTE MANIFEST

EMERGENCY RESPONSE
U.S. COAST GUARD 1-800-424-8802
CHEM TREC 1-800-424-9300
DEPT. OF NATURAL RESOURCES 314-634-2436

ase print or type (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No 2050-0039, Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. MOD000627503	Manifest Document No. 60033	2. Page 1 of 1	Information in the shaded areas is required by State law.

3. Generator's Name and Mailing Address
MIDDT ENTERPRISES ATTN: MR. JIM MOORE
ONE STEELCOTE SQUARE, ST. LOUIS, MO XXXXXX 63103

4. Generator's Phone (314) 771-8053

5. Transporter 1 Company Name: Hazmat Environmental Group
6. US EPA ID Number: WYD980769947

7. Transporter 2 Company Name:
8. US EPA ID Number:

9. Designated Facility Name and Site Address
SPRING GROVE RESOURCE RECOVERY
4879 SPRING GROVE AVENUE
CINCINNATI, OH 45232

10. US EPA ID Number: OHD000816629

[redacted]

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol
a. RQ, WASTE PAINT RELATED MATERIAL, FLAMMABLE LIQUID, NA 1263 (D001, F003, F005)	13	DM	616	G
b. HAZARDOUS WASTE SOLID N.O.S. (TOLUENE & XYLENE), ORM-E, NA 9188	15	DM	825	G
c. NON HAZARDOUS - NON REGULATED	18	DM	990	G
d.				

[redacted]

15. Special Handling Instructions and Additional Information
11A: 62475-XDA
11B: 62475-ZQA
11C: 62473-AAB
24-HR EMERGENCY CONTACT: 1-800-424-9300
EMERGENCY RESPONSE GUIDE: # 26, 31 11A: ADD'L FED CODES D018, D035 F001, F005
WO# 20104 11B: ADDTL FEDL CODE F005

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and applicable state regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method available to me that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
JAMES S. MOORE	James S. Moore	09	08	92

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Daniel Ray Link	Daniel Ray Link	09	08	92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY — PART 6

◄ IMPORTANT

SEE INSTRUCTIONS SHOULD PART 1 & 2 FAIL TO RETURN WITHIN 35 DAYS.

Form 8700-22 (Rev. 9-91) MDNR-HWG 10

SPRING GROVE RESOURCE RECOVERY LAND DISPOSAL NOTIFICATION AND CERTIFICATION NOTICE

This document is submitted to comply with 40 CFR 268.7. The information provided within this document is based upon knowledge of the land disposal restrictions and prohibitions under 40 CFR 268. The facility maintains a current copy of the 40 CFR 268 regulations.

GENERATOR NAME: NIEDT ENTERPRISES EPA ID Number: MOD 006275036

PRODUCT CODE: 62475-ZOA MANIFEST: 0033

NAME OF WASTE: CONTAMINATED SOIL

I. WASTE TREATMENT IDENTIFICATION

1. **Special Waste Identification.** Check if any of the following apply:

a) [ ] The waste stream is generated by a conditionally exempt small quantity generator. Skip to section V.

b) [ ] Entire waste stream is subject to a variance, extension, or exemption Skip to section III.5.

c) [ ] The waste stream is an Appendix IV/V Lab Pack (attach Lab Pack form 1 or 2 as appropriate). Skip to section V.

d) [ ] The waste stream is identified with a waste code which has no treatment standards in 40CFR 268. List codes here:_____. Skip to section I.1.e.

e) [ ] The waste stream is identified as F039 Multisource Leachate. Attach treatment constituent list. Skip to section I.2.

2. **Specific Waste Identification.** For each restricted waste code, complete this section by putting an "X" in the appropriate column, or by suppling appropriate information.

US EPA HAZARDOUS WASTE NUMBERS	SUBDIVISION		TREATABILITY GROUP*		TREATMENT STANDARD Mark where Treatment Standard in 40 CFR 268 can be found		
	Subdivision Name	#	Waste-water	Non-wastewater	268.41(a) CCWE	268.43(a) CCW	268.42(a) Technology**
F003		X		X	X		
F005		X		X	X		

* Wastewater definitions can be found in 40CFR 268.2. ** Enter 5 letter treatment code from 40CFR 268.42 Table I.

3. Spent Solvent. Is the waste stream a F001-F005 Spent Solvent?

NO [ ] YES [X] If yes, using table below, indicate the applicable solvent constituents contained in the waste stream with a [_] or [x] in the appropriate box.
(Note: WW=Wastewater; NWW=Nonwastewater)

F001 - F005 Spent Solvents

Table CCWE (40 CFR 268.41)

	WW (mg/L)	NWW (mg/kg)		WW (mg/L)	NWW (mg/L)
Acetone	[ ] 0.05	[ ] 0.59	Methylene Chloride	[ ] 0.20	[ ] 0.96
n-Butyl Alcohol	[ ] 5.0	[ ] 5.0	Methyl Ethyl Ketone	[ ] 0.05	[ ] 0.75
Carbon Disulfide	[ ] 1.05	[ ] 4.81	Methyl Isobutyl Ketone	[ ] 0.05	[ ] 0.33
Carbon Tetrachloride	[ ] 0.05	[ ] 0.96	Nitrobenzene	[ ] 0.66	[ ] 0.125
Chlorobenzene	[ ] 0.15	[ ] 0.05	Pyridine	[ ] 1.12	[ ] 0.33
Cresols (and Cresylic Acid)	[ ] 2.82	[ ] 0.75	Tetrachloroethylene	[ ] 0.079	[ ] 0.05
Cyclohexanone	[ ] 0.125	[ ] 0.75	Toluene	[ ] 1.12	[ ] 0.33
1,2-Dichlorobenzene	[ ] 0.65	[ ] 0.125	1,1,1-Trichloroethane	[ ] 1.05	[ ] 0.41
Ethyl Acetate	[ ] 0.05	[ ] 0.75	1,1,2-Trichloro-1,2,2-Trifluoroethane	[ ] 1.05	[ ] 0.96
Ethyl Benzene	[ ] 0.05	[ ] 0.053	Trichloroethylene	[ ] 0.062	[ ] 0.091
Ethyl Ether	[ ] 0.05	[ ] 0.75	Trichlorofluoromethane	[ ] 0.05	[ ] 0.96
Isobutanol	[ ] 5.0	[ ] 5.0	Xylene	[ ] 0.05	[ ] 0.15
Methanol	[ ] 0.25	[ ] 0.75			

Table CCW (40 CFR 268.43)

	WW (mg/L)	NWW (mg/kg)
Methylene Chloride (from the pharmaceutical industry)	[ ] 0.44	
1,1,2-Trichloroethane	[ ] 0.05	[ ] 7.6
Benzene	[ ] 0.07	[ ] 3.7

Table 2 in 40 CFR 268.42 (Technology Codes)

	WW	NWW
2-Nitropropane	[ ] WETOX or CHOXD(fb CARBN or INCIN)	[ ] INCIN
2-Ethoxyethanol	[ ] BIODG or INCIN	[ ] INCIN

4. California List. Indicate below the California List restriction(s) applicable to this waste stream with a [_] or [x] in the appropriate box. NOTE: The California List Restrictions may not apply in all situations.

[ ] A. Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l.

[ ] B. Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing the following metals (or elements) or compounds of these metals (or elements) at concentrations greater than or equal to those specified below:

[ ] arsenic and/or compounds (as As)	500 mg/l
[ ] mercury and/or compounds (as Hg)	20 mg/l
[ ] cadmium and/or compounds (as Cd)	100 mg/l
[ ] nickel and/or compounds (as Ni)	134 mg/l
[ ] chromium (VI and/or compounds (as Cr VI))	500 mg/l
[ ] selenium and/or compounds (as Se)	100 mg/l
[ ] lead and/or compounds (as Pb)	500 mg/l
[ ] thallium and/or compounds (as Tl)	130 mg/l

Product Code/Manifest # 62475-202/0033

[ ] C. Liquid hazardous waste having a pH less than or equal to two (2.0).

[ ] D. Liquid hazardous wastes that are primarily water and contain any one of or a combination of the halogenated organic compounds (HOCs) listed in Appendix III of 40 CFR 268 in total concentration greater than or equal to 1,000 mg/l and less than 10,000 mg/l.

[ ] E. The following wastes are subject to the technology based treatment standards established in 40 CFR 268.42. Indicate if your waste is represented by one of the categories below. (NOTE:The technology based standards do not apply where the waste is subject to a 40 CFR Part 268, Subpart C treatment standard for a specific HOC and the waste has been treated to meet that specific standard)

[ ] 1. Liquid hazardous wastes that are not primarily water and contain HOCs in total concentration greater than or equal to 1,000 mg/l.

[ ] 2. Non-liquid hazardous wastes containing HOCs in total concentrations greater than or equal to 1,000 mg/l.

[ ] 3. Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm.

III. RESTRICTIONS AND CERTIFICATIONS

Please identify the following certifications that apply to this waste stream by placing a [_] or [x] in the appropriate box.

[X] 1. RESTRICTED WASTE EXCEEDS TREATMENT STANDARDS OR PROHIBITION LEVELS

The restricted waste identified above must be treated to meet the applicable 40 CFR 268 Subpart D treatment standards or treated to comply with applicable prohibitions set forth in Part 268.32 or RCRA Section 3004(d). I have indicated the corresponding treatment standard(s) or the referencing of prohibitions in this document and I have attached all supporting analytical data, where available.

[ ] 2. RESTRICTED WASTE MEETS TREATMENT STANDARDS OR PROHIBITION LEVELS WITHOUT FURTHER TREATMENT

The restricted waste identified above meets the applicable treatment standards established in 40 CFR 268 Subpart D and the applicable prohibition levels established in 40 CFR 268.32 or RCRA Section 3004(d), and can be land disposed without further treatment. I have indicated the corresponding treatment standard(s) or referencing of prohibitions in this document and I have attached all supporting analytical data where available.

Federal

"I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment."

Ohio

"I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in rules 3745-59-40 to 3745-59-44 of the Administrative Code and all applicable prohibitions set forth in rule 3745-59-32 of the Administrative Code or section 3004(d) of RCRA. I believe that the information submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment."

[ ] 3. RESTRICTED WASTE TREATED TO MEET TREATMENT STANDARDS OR PROHIBITION LEVELS

The restricted waste identified above has been treated to ensure compliance with the applicable treatment standards

established in 40 CFR 268 Subpart D and the applicable prohibition levels established in 40 CFR 268.32 or RCRA Section 3004(d). I have indicated the corresponding treatment standard(s) or prohibitions in this document, and I have attached all supporting analytical data where available.

Federal

"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268, Subpart D, and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

Ohio

"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in rules 3745-59-40 to 3745-59-44 of the Administrative Code and all applicable prohibitions set forth in rule 3745-59-32 or section 3004(d) of RCRA without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

[ ] 4. RESTRICTED WASTE TREATED TO MEET A TECHNOLOGY BASED TREATMENT STANDARDS

The waste to be managed is a treatment residue of a restricted waste that has been treated by a technology specified in 40 CFR 268.42.

Federal

"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.42. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

Ohio

"I certify under penalty of law that the waste has been treated in accordance with the requirements of rule 3745-59-42 of the Administrative Code. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

[ ] 5. RESTRICTED WASTE SUBJECT TO A VARIANCE, EXTENSION OR EXEMPTION

The restricted waste identified above is subject to a case-by-case extension under 40 CFR 268.5, an exemption under 40 CFR 268.6, or a nationwide variance under Subpart C of 40 CFR 268, and is not prohibited from land disposal in a surface impoundment or landfill that is in compliance with 40 CFR 268.5(h)(2). I have attached all supporting analytical data where available. The waste becomes subject to the prohibitions on (Date) _____.

IV. ADDITIONAL COMMENTS

_____

_____

V. GENERATOR CERTIFICATION

I hereby certify that all information provided in this and all associated documents is complete and accurate to the best of my knowledge and ability to determine.

Signature X James S. Moore Title X OPERATIONS MANAGER

Name (Type or Print) X JAMES S. MOORE Date X SEPTEMBER 8, 1992

Metropolitan
St. Louis Sewer
District

Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
(314) 436-8710
FAX (314) 436-8753

September 21, 1992

Mr. James S. Moore
STEELCOTE MANUFACTURING COMPANY
One Steelcote Square
St. Louis, MO 63103

Dear Mr. Moore:

We have reviewed your application dated September 18, 1992 requesting approval to discharge approximately 100 gallons of development and sampling water to the Metropolitan St. Louis Sewer District for treatment. This water is from the monitoring wells at Steelcote Manufacturing Company, One Steelcote Square. This wastewater as approved is approved for discharge into the sanitary sewer on site. This approval is valid for 30 days from the date of this letter.

You must be certain the waste is discharged into a sanitary or combined sewer inlet only. This letter does not authorize any discharge to a separate storm sewer, or to any watercourse, as any such discharge would be in violation of state and federal laws.

This discharge has been approved based upon the information and sample analysis you provided, and is subject to the conditions stated above. This approval may be revoked by the District at any time if any of the information is found to be incorrect, or if the conditions of this approval are violated. Also, if the discharge causes any operational or maintenance problem within the District's treatment system, or results in violations of any conditions of the District's NPDES permit, Steelcote Manufacturing Company will be considered responsible for damages.

If you have any questions, please call me at 436-8720.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Susan McCray Armstrong
Engineering Associate

9/29/92 - POUR WATER INTO COMBINED SEWER ON SOUTH SIDE OF PLANT.
Jim Moore

rv

pc Bernie Raine

STORM WATER SAMPLING

&

ANALYSES RESULTS

Steelcote Facility
St. Louis, Missouri

October 9, 1992

Z-301

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
11500 Olive Boulevard • Suite 276
Saint Louis, Missouri 63141 •7126
314 •872 •8170

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: SHANNON & WILSON, INC.
11500 OLIVE BLVD. SUITE 276
ST. LOUIS, MO 63141
ATTN: LARRY ROSEN

REPORT: 508901SW(129)
DATE : 09-22-92

SAMPLE MATRIX : WATER
ATAS # : 5089.01
SAMPLE ID : SWSF/1(8-26-92)

DATE SUBMITTED: 08-27-92
PROJECT : Z-301-05

PARAMETER	DET LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
METHYLENE CHLORIDE	5	ug/L	7	09-02-92	CLP VOA
CARBON TERTACHLORIDE	5	ug/L	ND	09-02-92	CLP VOA
XYLENE	5	ug/L	ND	09-02-92	CLP VOA
METHLY ISOBUTYL KETONE	10	ug/L	ND	09-02-92	CLP VOA
TOLUENE	5	ug/L	1 J	09-02-92	CLP VOA
METHYL ETHYL KETONE	10	ug/L	ND	09-02-92	CLP VOA
BENZENE	5	ug/L	1 J	09-02-92	CLP VOA
ETHYL ACETATE	*	ug/L	ND	09-02-92	CLP VOA LS
CUMENE	*	ug/L	ND	09-02-92	CLP VOA LS
1-BUTANOL	*	ug/L	ND	09-02-92	CLP VOA LS
2-ETHOXYETHANOL	*	ug/L	ND	09-02-92	CLP VOA LS
2-METHYL-1-PROPANOL	*	ug/L	ND	09-02-92	CLP VOA LS

QA/QC SURROGATE RECOVERIES

TOLUENE-d8(88-110) 108 % BROMOFLUOROBENZENE(86-115) 88 % 1,2-DICHLOROETHANE-D4(76-114) 102 %

BUTYL BENZYL PHTHALATE	10	ug/L	ND	09-11-92	CLP SVOA
DIBUTYL PHTHALATE	10	ug/L	ND	09-11-92	CLP SVOA
DI(2-ETHYLHEXYL)PHTHALATE	10	ug/L	ND	09-11-92	CLP SVOA
PHENOL	10	ug/L	ND	09-11-92	CLP SVOA
NAPHTHALENE	10	ug/L	ND	09-11-92	CLP SVOA
CYCLOHEXANONE	*	ug/L	ND	09-11-92	CLP SVOA LS
TOLUENE-2,4-DIISOCYANATE	*	ug/L	ND	09-11-92	CLP SVOA LS
NITROSOIMINO DIETHANOL	*	ug/L	ND	09-11-92	CLP SVOA LS
EPICHLOROHYDRIN	*	ug/L	ND	09-11-92	CLP SVOA LS
BISPHENOL A/EPICHLOROHYDRIN	*	ug/L	ND	09-11-92	CLP SVOA LS

QA/QC SURROGATE RECOVERIES

NITROBENZENE-d5(35-114) 66 % TERPHENYL-d14(33-141) 92 % 2-FLUOROPHENOL(21-100) 40 %
2-FLUOROBIPHENYL(43-116) 76 % PHENOL-d5(10-94) 32 % 2,4,6-TRIBROMOPHENOL(10-123) 69 %

METHANOL	1	ug/mL	ND	09-04-92	GC/FID
FORMALDEHYDE	10	ug/L	138 B*	09-12-92	HPLC
BARIUM	14	ug/L	72.7	09-02-92	CLP METALS
CHROMIUM	3	ug/L	5.0	09-02-92	CLP METALS
CADMIUM	2	ug/L	3.10	09-02-92	CLP METALS
LEAD	2	ug/L	389	09-01-92	CLP METALS
NICKEL	8	ug/L	11.9	09-02-92	CLP METALS

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: SHANNON & WILSON, INC.
11500 OLIVE BLVD. SUITE 276
ST. LOUIS, MO 63141
ATTN: LARRY ROSEN

REPORT: 508902SW(129)

DATE : 09-22-92

SAMPLE MATRIX : WATER
ATAS # : 5089.02
SAMPLE ID : SWSF/2(8-26-92)

DATE SUBMITTED: 08-27-92
PROJECT : Z-301-05

PARAMETER	DET LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
METHYLENE CHLORIDE	5	ug/L	ND	09-02-92	CLP VOA
CARBON TERTACHLORIDE	5	ug/L	ND	09-02-92	CLP VOA
XYLENE	5	ug/L	ND	09-02-92	CLP VOA
METHLY ISOBUTYL KETONE	10	ug/L	ND	09-02-92	CLP VOA
TOLUENE	5	ug/L	ND	09-02-92	CLP VOA
METHYL ETHYL KETONE	10	ug/L	ND	09-02-92	CLP VOA
BENZENE	5	ug/L	ND	09-02-92	CLP VOA
ETHYL ACETATE	*	ug/L	ND	09-02-92	CLP VOA LS
CUMENE	*	ug/L	ND	09-02-92	CLP VOA LS
N-BUTANOL	*	ug/L	ND	09-02-92	CLP VOA LS
2-ETHOXYETHANOL	*	ug/L	ND	09-02-92	CLP VOA LS
4-METHYL-1-PROPANOL	*	ug/L	ND	09-02-92	CLP VOA LS

QA/QC SURROGATE RECOVERIES

TOLUENE-d8(88-110) 105 % BROMOFLUOROBENZENE(86-115) 96 % 1,2-DICHLOROETHANE-D4(76-114) 103 %

BUTYL BENZYL PHTHALATE	10	ug/L	ND	09-10-92	CLP SVOA
DIBUTYL PHTHALATE	10	ug/L	ND	09-10-92	CLP SVOA
DI(2-ETHYLHEXYL)PHTHALATE	10	ug/L	ND	09-10-92	CLP SVOA
PHENOL	10	ug/L	ND	09-10-92	CLP SVOA
NAPHTHALENE	10	ug/L	ND	09-10-92	CLP SVOA
CYCLOHEXANONE	*	ug/L	ND	09-10-92	CLP SVOA LS
TOLUENE-2,4-DIISOCYANATE	*	ug/L	ND	09-10-92	CLP SVOA LS
NITROSOIMINO DIETHANOL	*	ug/L	ND	09-10-92	CLP SVOA LS
EPICHLOROHYDRIN	*	ug/L	ND	09-10-92	CLP SVOA LS
BISPHENOL A/EPICHLOROHYDRIN	*	ug/L	ND	09-10-92	CLP SVOA LS

QA/QC SURROGATE RECOVERIES

NITROBENZENE-d5(35-114) 54 % TERPHENYL-d14(33-141) 69 % 2-FLUOROPHENOL(21-100) 46 %
2-FLUOROBIPHENYL(43-116) 50 % PHENOL-d5(10-94) 50 % 2,4,6-TRIBROMOPHENOL(10-123) 65 %

METHANOL	1	ug/mL	ND	09-04-92	GC/FID
FORMALDEHYDE	10	ug/L	117.2 B*	09-12-92	HPLC
BARIUM	14	ug/L	21.7	09-02-92	CLP METALS
CHROMIUM	3	ug/L	ND	09-02-92	CLP METALS
CADMIUM	2	ug/L	ND	09-02-92	CLP METALS
LEAD	2	ug/L	53.7	09-01-92	CLP METALS
NICKEL	8	ug/L	ND	09-02-92	CLP METALS

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CLIENT: SHANNON & WILSON, INC.
11500 OLIVE BLVD. SUITE 276
ST. LOUIS, MO 63141
ATTN: LARRY ROSEN

REPORT: 508903SW(129)

DATE : 09-22-92

SAMPLE MATRIX : WATER
ATAS # : 5089.03
SAMPLE ID : SWSF/3(8-26-92)

DATE SUBMITTED: 08-27-92
PROJECT : Z-301-05

PARAMETER	DET LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
METHYLENE CHLORIDE	5	ug/L	10	09-02-92	CLP VOA
ARBON TERTACHLORIDE	5	ug/L	ND	09-02-92	CLP VOA
YLENE	5	ug/L	ND	09-02-92	CLP VOA
METHLY ISOBUTYL KETONE	10	ug/L	ND	09-02-92	CLP VOA
TOLUENE	5	ug/L	ND	09-02-92	CLP VOA
ETHYL ETHYL KETONE	10	ug/L	ND	09-02-92	CLP VOA
BENZENE	5	ug/L	ND	09-02-92	CLP VOA
ETHYL ACETATE	*	ug/L	ND	09-02-92	CLP VOA LS
UMENE	*	ug/L	ND	09-02-92	CLP VOA LS
-BUTANOL	*	ug/L	ND	09-02-92	CLP VOA LS
2-ETHOXYETHANOL	*	ug/L	ND	09-02-92	CLP VOA LS
-METHYL-1-PROPANOL	*	ug/L	ND	09-02-92	CLP VOA LS

QA/QC SURROGATE RECOVERIES

OLUENE-d8(88-110) 109 % BROMOFLUOROBENZENE(86-115) 98 % 1,2-DICHLOROETHANE-D4(76-114) 105 %

BUTYL BENZYL PHTHALATE	10	ug/L	4 J	09-10-92	CLP SVOA
IBUTYL PHTHALATE	10	ug/L	ND	09-10-92	CLP SVOA
I(2-ETHYLHEXYL)PHTHALATE	10	ug/L	ND	09-10-92	CLP SVOA
PHENOL	10	ug/L	ND	09-10-92	CLP SVOA
NAPHTHALENE	10	ug/L	ND	09-10-92	CLP SVOA
YCLOHEXANONE	*	ug/L	ND	09-10-92	CLP SVOA LS
TOLUENE-2,4-DIISOCYANATE	*	ug/L	ND	09-10-92	CLP SVOA LS
NITROSOIMINO DIETHANOL	*	ug/L	ND	09-10-92	CLP SVOA LS
PICHLOROHYDRIN	*	ug/L	ND	09-10-92	CLP SVOA LS
ISPHENOL A/EPICHLOROHYDRIN	*	ug/L	ND	09-10-92	CLP SVOA LS

QA/QC SURROGATE RECOVERIES

NITROBENZENE-d5(35-114) 59 % TERPHENYL-d14(33-141) 74 % 2-FLUOROPHENOL(21-100) 52 %
2-FLUOROBIPHENYL(43-116) 51 % PHENOL-d5(10-94) 58 % 2,4,6-TRIBROMOPHENOL(10-123) 68 %

METHANOL	1	ug/mL	ND	09-04-92	GC/FID
FORMALDEHYDE	10	ug/L	158.2 B*	09-12-92	HPLC
BARIUM	14	ug/L	95.7	09-02-92	CLP METALS
CHROMIUM	3	ug/L	11.5	09-02-92	CLP METALS
CADMIUM	2	ug/L	7.2	09-02-92	CLP METALS
LEAD	2	ug/L	280	09-01-92	CLP METALS
NICKEL	8	ug/L	ND	09-02-92	CLP METALS

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CLIENT: SHANNON & WILSON, INC.
11500 OLIVE BLVD. SUITE 276
ST. LOUIS, MO 63141
ATTN: LARRY ROSEN

REPORT: 508904SW(129)
DATE : 09-22-92

SAMPLE MATRIX : WATER
ATAS # : 5089.04
SAMPLE ID : SWSF/4(8-26-92)

DATE SUBMITTED: 08-27-92
PROJECT : Z-301-05

PARAMETER	DET LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
METHYLENE CHLORIDE	5	ug/L	6	09-02-92	CLP VOA
CARBON TERTACHLORIDE	5	ug/L	ND	09-02-92	CLP VOA
XYLENE	5	ug/L	ND	09-02-92	CLP VOA
METHLY ISOBUTYL KETONE	10	ug/L	ND	09-02-92	CLP VOA
TOLUENE	5	ug/L	ND	09-02-92	CLP VOA
METHYL ETHYL KETONE	10	ug/L	ND	09-02-92	CLP VOA
BENZENE	5	ug/L	ND	09-02-92	CLP VOA
ETHYL ACETATE	*	ug/L	ND	09-02-92	CLP VOA LS
CUMENE	*	ug/L	ND	09-02-92	CLP VOA LS
1-BUTANOL	*	ug/L	ND	09-02-92	CLP VOA LS
2-ETHOXYETHANOL	*	ug/L	ND	09-02-92	CLP VOA LS
2-METHYL-1-PROPANOL	*	ug/L	ND	09-02-92	CLP VOA LS

QA/QC SURROGATE RECOVERIES

TOLUENE-d8(88-110) 107 % BROMOFLUOROBENZENE(86-115) 92 % 1,2-DICHLOROETHANE-D4(76-114) 106 %

BUTYL BENZYL PHTHALATE	10	ug/L	ND	09-10-92	CLP SVOA
DIBUTYL PHTHALATE	10	ug/L	ND	09-10-92	CLP SVOA
DI(2-ETHYLHEXYL)PHTHALATE	10	ug/L	ND	09-10-92	CLP SVOA
PHENOL	10	ug/L	ND	09-10-92	CLP SVOA
NAPHTHALENE	10	ug/L	ND	09-10-92	CLP SVOA
CYCLOHEXANONE	*	ug/L	ND	09-10-92	CLP SVOA LS
TOLUENE-2,4-DIISOCYANATE	*	ug/L	ND	09-10-92	CLP SVOA LS
NITROSOIMINO DIETHANOL	*	ug/L	ND	09-10-92	CLP SVOA LS
EPICHLOROHYDRIN	*	ug/L	ND	09-10-92	CLP SVOA LS
BISPHENOL A/EPICHLOROHYDRIN	*	ug/L	ND	09-10-92	CLP SVOA LS

QA/QC SURROGATE RECOVERIES

NITROBENZENE-d5(35-114) 72 % TERPHENYL-d14(33-141) 94 % 2-FLUOROPHENOL(21-100) 64 %
2-FLUOROBIPHENYL(43-116) 69 % PHENOL-d5(10-94) 71 % 2,4,6-TRIBROMOPHENOL(10-123) 88 %

METHANOL	1	ug/mL	ND	09-04-92	GC/FID
FORMALDEHYDE	10	ug/L	120 B*	09-12-92	HPLC
BARIUM	14	ug/L	126	09-02-92	CLP METALS
CHROMIUM	3	ug/L	9.7	09-02-92	CLP METALS
CADMIUM	2	ug/L	3.3	09-02-92	CLP METALS
LEAD	2	ug/L	417	09-01-92	CLP METALS
NICKEL	8	ug/L	ND	09-02-92	CLP METALS

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CLIENT: SHANNON & WILSON, INC.
11500 OLIVE BLVD. SUITE 276
ST. LOUIS, MO 63141
ATTN: LARRY ROSEN

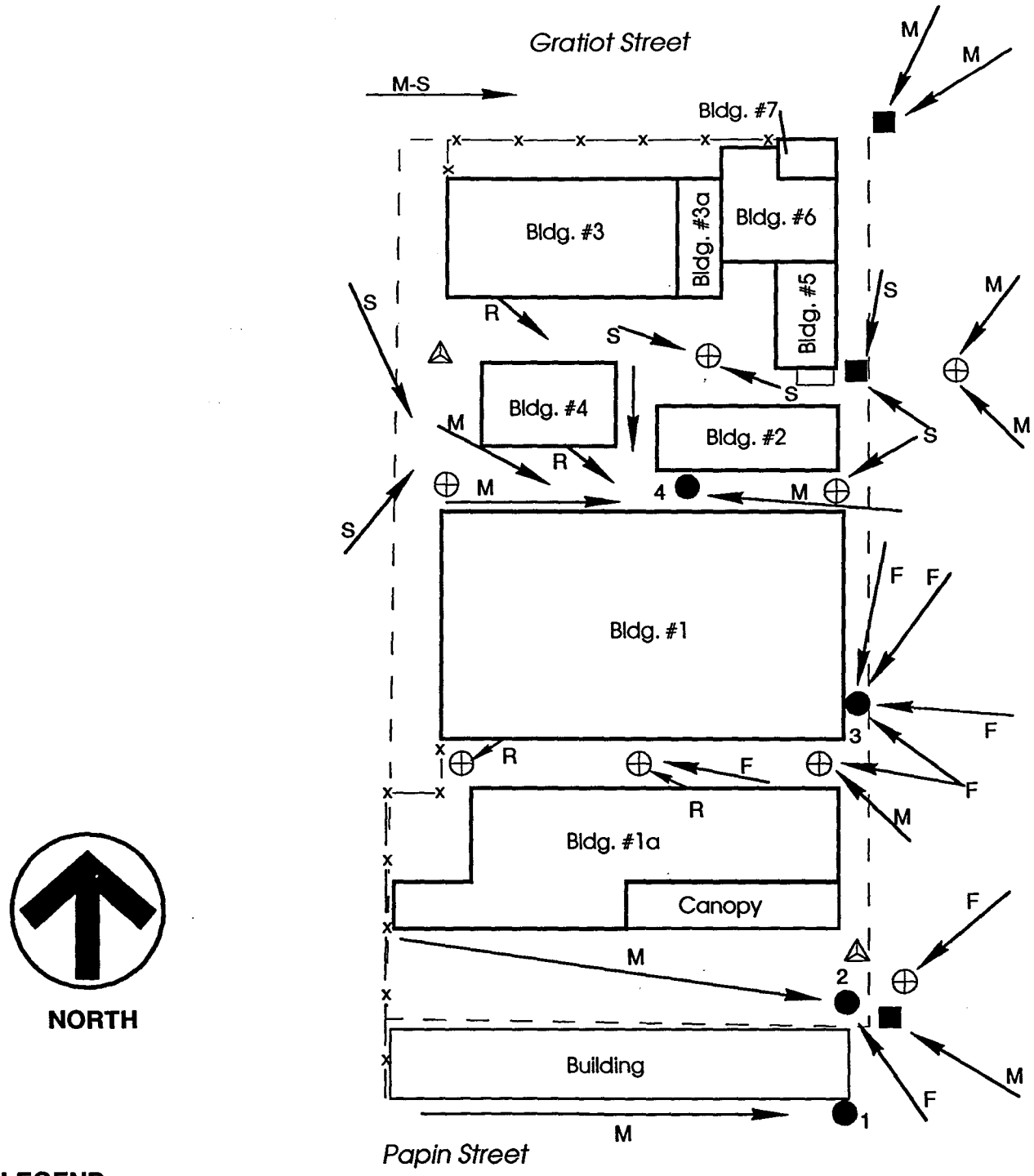
REPORT: 508901SW(129)

DATE : 09-22-92

DESCRIPTIONS OF FOOTNOTES

ND = NOT DETECTED
ug/L = PARTS PER BILLION(PPB)
ug/mL = PARTS PER MILLION(PPM)
TIC = TENTATIVELY IDENTIFIED COMPOUND
* = NO DETECTION LIMIT AVAILABLE
** = OUTSIDE QC ON BOTH ORIGINAL AND RERUN
*** = CUMENE OR ISOMERS OF CUMENE WERE IDENTIFIED IN THE SEMI-VOLATILE TIC's.
B = ANALYTE ALSO FOUND IN BLANK
B* = AVERAGE CONCENTRATION AMOUNT FOUND IN THE METHOD BLANKS WAS SUBTRACTED FROM THE AMOUNT FOUND IN THE SAMPLE. USED ONLY FOR FORMALDEHYDE REPORTS.
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION (ORGANICS ONLY)

NOTE: METALS DETECTION LIMITS ARE BASED ON ACTUAL INSTRUMENT DETECTION LIMITS



STEELCOTE STORMWATER SAMPLING LOCATIONS

STEELCOTE FACILITY
ST. LOUIS, MISSOURI

Z-301-05

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

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